

**Bureau of Construction Codes**  
**2007 Michigan Uniform Energy Code**  
**Residential**

RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
408.31059	---	General	<p><b>Add R 408.31059 to read as follows:</b></p> <p>R 408.31059. General</p> <p>Rule 1059. (1). Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by <u>the Michigan residential code for one- and two-family dwellings</u>.</p> <p>Exceptions:</p> <p><u>a. Portions of the building envelope that do not enclose conditioned space.</u></p> <p><u>b. Existing buildings. Except as specified in the Michigan residential code for one- and two-family dwellings this code shall not be used to require the removal, alteration or abandonment of, nor prevent the continued use and maintenance of, an existing building or building system lawfully in existence at the time of adoption of this code.</u></p> <p><u>c. Historic buildings. Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, are exempt from this code.</u></p> <p><u>d. Additions, alterations, renovations or repairs. Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations, or repairs shall not create an unsafe or hazardous condition or overload existing building systems.</u></p> <p><u>Exception: The following need not comply provided the energy use of the building is not increased:</u></p> <p><u>1. Storm windows installed over existing fenestration.</u></p> <p><u>2. Glass only replacements in an existing sash and frame.</u></p> <p><u>3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.</u></p> <p><u>e. Low energy buildings. The following buildings, or portions thereof, separated from the remainder of the building by building thermal envelope assemblies complying with this code shall be exempt from the building thermal envelope provisions of this code:</u></p> <p><u>1. Those with a peak design rate of energy usage less than 3.4 Btu/h ft<sup>2</sup> (10.7 W/m<sup>2</sup>) or 1.0 watt/ft<sup>2</sup> (10.7 W/m<sup>2</sup>) of floor area for space conditioning purposes.</u></p> <p>(2) Compliance. Compliance shall be demonstrated by <u>meeting the requirements of this chapter or</u></p>

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			<p>the requirements of Chapter 4 of the <u>2006 edition of the International Energy Conservation Code(IECC)</u></p> <p>Climate zones from Figure R408.3160 or Table R408.3160 shall be used in determining the applicable requirements from this chapter.</p> <p>(3) Identification. Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this chapter.</p> <p><u>(4) When the glazed area exceeds 20% of the above grade gross wall area the building shall be designed in accordance with section 404 of the IECC</u></p> <p>(5) Building thermal envelope insulation. An <i>R</i>-value identification mark shall be applied by the manufacturer to each piece of building thermal envelope insulation 12 inches (305 mm) or more wide. Alternately, the insulation installers shall provide a certification listing the type, manufacturer and <i>R</i>-value of insulation installed in each element of the building thermal envelope. For blown or sprayed insulation (fiberglass and cellulose), the initial installed thickness, settled thickness, settled <i>R</i>-value, installed density, coverage area and number of bags installed shall be listed on the certification. For sprayed polyurethane foam (SPF) insulation, the installed thickness of the area covered and <i>R</i>-value of installed thickness shall be listed on the certificate. The insulation installer shall sign, date and post the certificate in a conspicuous location on the job site.</p> <p>(6) Blown or sprayed roof/ceiling insulation. The thickness of blown in or sprayed roof/ceiling insulation (fiberglass or cellulose) shall be written in inches (mm) on markers that are installed at least one for every 300 ft<sup>2</sup> (28 m<sup>2</sup>) throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness with numbers a minimum of 1 inch (25 mm) high. Each marker shall face the attic access opening. Spray polyurethane foam thickness and installed <i>R</i>-value shall be listed on the certificate provided by the insulation installer.</p> <p>(7) Insulation mark installation. Insulating materials shall be installed such that the manufacturer's <i>R</i>-value mark is readily observable upon inspection.</p> <p>(8) Fenestration product rating. <i>U</i>-factors of fenestration products (windows, doors and skylights) shall be determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer.</p>

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			<p>Products lacking such a labeled <i>U</i>-factor shall be assigned a default <i>U</i>-factor from Tables R 408.31072(1) and R 408.31072(2). The solar heat gain coefficient (SHGC) of glazed fenestration products (windows, glazed doors and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC shall be assigned a default SHGC from Table R 408.31072(3).</p> <p><u>Exceptions:</u></p> <p><u>1. Up to 15 square feet (1.4m<sup>2</sup>) of glazed fenestration per dwelling unit shall be permitted to be exempt from <i>U</i>-factor and SHGC requirements in this chapter.</u></p> <p><u>2. One opaque door assembly is exempted from the <i>U</i>-factor requirement in this chapter.</u></p> <p><u>3. Fenestration products not certified by an independent NFRC approved laboratory may be approved pursuant to Section 21 of 1972 PA 230, MCL 125.1521 for compliance with this section of the code.</u></p> <p><u>(9) Site energy consumption may be used rather than energy cost as the metric of comparison.</u></p> <p><u>(10) Installation. All materials, systems and equipment shall be installed in accordance with the manufacturer's installation instructions and the provisions of this code.</u></p> <p><u>(11) Protection of exposed foundation insulation. Insulation applied to the exterior of basement walls, crawl space walls, and the perimeter of slab-on-grade floors shall have a rigid, opaque and weather-resistant protective covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover the exposed exterior insulation and extend a minimum of 6 inches (152 mm) below grade.</u></p> <p><u>(12) Above code programs. The building official or other authority having jurisdiction shall be permitted to deem a national, state or local energy efficiency program to exceed the energy efficiency required by this chapter. Buildings approved in writing by such an energy efficiency program shall be considered in compliance with this chapter.</u></p> <p><u>(13) Certificate. A permanent certificate shall be posted on or in the electrical distribution panel. The certificate shall not obscure the panel legend required to permanently identify the panel circuits. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant <i>R</i>-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawl space wall and/or floor) and ducts outside conditioned spaces; <i>U</i>-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than</u></p>

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			one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type and efficiency of heating, cooling and service water heating equipment.

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408.31060	---	Climate Zones by County	<p><b>Add R 408.31060 to read as follows:</b> R 408.31060 Climate zones by county. Rule 1060. Climate zones by county. Table R 408.31060 is added to read as follows:</p> <table><tr><th colspan="3">Table R 408.31060 Climate zones by county</th></tr><tr><th>1</th><th>2</th><th>3</th></tr><tr><td>Allegan</td><td>Alcona</td><td>Alger</td></tr><tr><td>Barry</td><td>Alpena</td><td>Baraga</td></tr><tr><td>Berrien</td><td>Antrim</td><td>Chippewa</td></tr><tr><td>Branch</td><td>Arenac</td><td>Delta</td></tr><tr><td>Calhoun</td><td>Bay</td><td>Dickinson</td></tr><tr><td>Cass</td><td>Benzie</td><td>Gogebic</td></tr><tr><td>Clinton</td><td>Charlevoix</td><td>Houghton</td></tr><tr><td>Eaton</td><td>Cheboygan</td><td>Iron</td></tr><tr><td>Genesee</td><td>Clare</td><td>Keweenaw</td></tr><tr><td>Gratiot</td><td>Crawford</td><td>Luce</td></tr><tr><td>Hillsdale</td><td>Emmet</td><td>Mackinac</td></tr><tr><td>Huron</td><td>Gladwin</td><td>Marquette</td></tr><tr><td>Ingham</td><td>Grand Traverse</td><td>Menominee</td></tr><tr><td>Ionia</td><td>Iosco</td><td>Ontonagon</td></tr><tr><td>Jackson</td><td>Isabella</td><td>Schoolcraft</td></tr><tr><td>Kalamazoo</td><td>Kalkaska</td><td></td></tr><tr><td>Kent</td><td>Lake</td><td></td></tr><tr><td>Lapeer</td><td>Leelanau</td><td></td></tr><tr><td>Lenawee</td><td>Manistee</td><td></td></tr><tr><td>Livingston</td><td>Mason</td><td></td></tr><tr><td>Macomb</td><td>Mecosta</td><td></td></tr><tr><td>Monroe</td><td>Midland</td><td></td></tr><tr><td>Montcalm</td><td>Missaukee</td><td></td></tr><tr><td>Muskegon</td><td>Montmorency</td><td></td></tr><tr><td>Oakland</td><td>Newaygo</td><td></td></tr><tr><td>Ottawa</td><td>Oceana</td><td></td></tr><tr><td>Saginaw</td><td>Ogemaw</td><td></td></tr><tr><td>Sanilac</td><td>Osceola</td><td></td></tr><tr><td>Shiawassee</td><td>Oscoda</td><td></td></tr><tr><td>St. Clair</td><td>Otsego</td><td></td></tr><tr><td>St. Joseph</td><td>Presque Isle</td><td></td></tr><tr><td>Tuscola</td><td>Roscommon</td><td></td></tr><tr><td>Van Buren</td><td>Wexford</td><td></td></tr><tr><td>Washtenaw</td><td></td><td></td></tr><tr><td>Wayne</td><td></td><td></td></tr></table>	Table R 408.31060 Climate zones by county			1	2	3	Allegan	Alcona	Alger	Barry	Alpena	Baraga	Berrien	Antrim	Chippewa	Branch	Arenac	Delta	Calhoun	Bay	Dickinson	Cass	Benzie	Gogebic	Clinton	Charlevoix	Houghton	Eaton	Cheboygan	Iron	Genesee	Clare	Keweenaw	Gratiot	Crawford	Luce	Hillsdale	Emmet	Mackinac	Huron	Gladwin	Marquette	Ingham	Grand Traverse	Menominee	Ionia	Iosco	Ontonagon	Jackson	Isabella	Schoolcraft	Kalamazoo	Kalkaska		Kent	Lake		Lapeer	Leelanau		Lenawee	Manistee		Livingston	Mason		Macomb	Mecosta		Monroe	Midland		Montcalm	Missaukee		Muskegon	Montmorency		Oakland	Newaygo		Ottawa	Oceana		Saginaw	Ogemaw		Sanilac	Osceola		Shiawassee	Oscoda		St. Clair	Otsego		St. Joseph	Presque Isle		Tuscola	Roscommon		Van Buren	Wexford		Washtenaw			Wayne		
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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
408.31061	Definitions; A to C	Definitions	<b>Amend R 408.31061 to delete definitions and add the following language:</b> R 408.31061. Definitions. Rule 1061. Definitions. Definitions shall have the meanings as defined in the Michigan Residential code adopted pursuant to the Part 4 Building Code rules or as the context implies when not defined.
408.31062	Definitions; E to G	---	<b>Delete language</b>
408.31063	Definitions; H to M	---	<b>Delete language</b>
408.31064	Definitions; O to R	---	<b>Delete language</b>
408.31065	Definitions; S to T	---	<b>Delete language</b>
408.31066	Definitions; U to Z	---	<b>Delete language</b>
408.31069			
408.31070	Code title, intent, compliance, and exemption; adoption of standards by reference.	Building thermal envelope	<b>Amend R 408.31070 to read as follows:</b> R 408.31070 Building thermal envelope. Rule 1070. All of the following provisions apply to the building component. (1) Building thermal envelope. (a) Insulation and fenestration criteria. The building thermal envelope shall meet the requirements of Table R 408.31073(1) based on the climate zone specified in Table R 408.3106. (b) <i>R</i> -value computation. Insulation material used in layers, such as framing cavity insulation and insulating sheathing, shall be summed to compute the component <i>R</i> -value. The manufacturer's settled <i>R</i> -value shall be used for blown insulation. Computed <i>R</i> -values shall not include an <i>R</i> -value for other building materials or air films. (c) <i>U</i> -factor alternative. An assembly with a <i>U</i> -factor equal to or less than that specified in Table R 408.31073(2) shall be permitted as an alternative to the <i>R</i> -value in Table R 408.31073(1). Exception: For mass walls not meeting the criterion for insulation location in the mass wall provisions of this rule, the <i>U</i> -factor shall be permitted to be: <i>U</i> -factor of 0.082 in Climate Zone 1 (d) Total UA alternative. If the total building thermal envelope UA (sum of <i>U</i> -factor times assembly area) is less than or equal to the total UA resulting from using the <i>U</i> -factors in Table R 408.31073(2), (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table R 408.31073(1). The UA calculation shall be done using a method consistent with the ASHRAE <i>Handbook of Fundamentals</i> and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance. (2) Specific insulation requirements.

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			<p>(a) Ceilings with attic spaces. When the insulation and fenestration criteria provisions of this rule would require R-38 in the ceiling, R-30 shall be deemed to satisfy the requirement for R-38 wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Similarly R-38 shall be deemed to satisfy the requirement for R-49 wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves.</p> <p>(b) Ceilings without attic spaces. Where the insulation and fenestration criteria provisions of this rule would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the insulation and fenestration criteria provisions of this rule shall be limited to 500 ft<sup>2</sup> (46 m<sup>2</sup>) of ceiling area.</p> <p>(c) Mass walls. Mass walls, for the purposes of this code, shall be considered walls of concrete block, concrete, insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth (adobe, compressed earth block, rammed earth) and solid timber/logs. The provisions of the insulation and fenestration criteria provisions of this rule for mass walls shall be applicable when at least 50 percent of the required insulation R-value is on the exterior of, or integral to, the wall. Walls that do not meet this criterion for insulation placement shall meet the wood frame wall insulation requirements of the insulation and fenestration criteria provisions of this rule.</p> <p>Exception: For walls that do not meet this criterion for insulation placement, the minimum added insulation R-value shall be permitted to be: R-value of 13 in climate Zone 1</p> <p>(d) Steel-frame ceilings, walls and floors. Steel frame ceilings, walls and floors shall meet the insulation requirements of Table R 408.31073(3) or shall meet the U-factor requirements in Table R 408.31073(2). The calculation of the U-factor for a steel-frame envelope assembly shall use a series-parallel path calculation method.</p> <p>(e) Floors. Floor insulation shall be installed to maintain permanent contact with the underside of the subfloor decking.</p> <p>(f) Basement walls. Exterior walls associated with conditioned basements shall be insulated from the top of the basement wall down to 10 feet (3048 mm) below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with the insulation and fenestration criteria provisions and the floor provisions of this rule.</p> <p>(g) Slab-on-grade floors. Slab-on-grade floors with a floor surface less than 12 inches below grade shall be insulated in accordance with Table R 408.31073(1). The insulation shall extend downward from the top of the slab on the outside or inside of the foundation wall. Insulation located below</p>

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			<p>grade shall be extended the distance provided in Table R 408.31073(1) by any combination of vertical insulation, insulation extending under the slab or insulation extending out from the building. Insulation extending away from the building shall be protected by pavement or by a minimum of 10 inches (254 mm) of soil. The top edge of the insulation installed between the exterior wall and the edge of the interior slab shall be permitted to be cut at a 45-degree (0.79 rad) angle away from the exterior wall. Slab-edge insulation is not required in jurisdictions designated by the code official as having a very heavy termite infestation.</p> <p>(h) Crawl space walls. As an alternative to insulating floors over crawl spaces, insulation of crawl space walls when the crawl space is not vented to the outside is permitted. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous vapor retarder. All joints of the vapor retarder shall overlap by 6 inches (152 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached to the stem wall.</p> <p>(i) Masonry veneer. Insulation shall not be required on the horizontal portion of the foundation that supports a masonry veneer.</p> <p>(j) Thermally isolated sunroom insulation. The minimum ceiling insulation <i>R</i>-values shall <u>be</u> R-24. The minimum wall <i>R</i>-value shall be R-13. New wall(s) separating the sunroom from conditioned spaces shall meet the building thermal envelope requirements.</p> <p>(3) Fenestration.</p> <p>(a) <i>U</i>-factor. An area-weighted average of fenestration products shall be permitted to satisfy the <i>U</i>-factor requirements.</p> <p><u>(b)</u> Glazed fenestration exemption. Up to 15 square feet (1.4 m<sup>2</sup>) of glazed fenestration per dwelling unit shall be permitted to be exempt from <i>U</i>-factor.</p> <p><u>(c)</u> Opaque door exemption. One opaque door assembly is exempted from the <i>U</i>-factor requirement in the insulation and fenestration criteria provisions of this rule.</p> <p><u>(d)</u> Thermally isolated sunroom <i>U</i>-factor. The maximum fenestration <i>U</i>-factor shall be 0.50 and the maximum skylight <i>U</i>-factor shall be 0.75. New windows and doors separating the sunroom from conditioned space shall meet the building thermal envelope requirements.</p> <p><u>(e)</u> Replacement fenestration. Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for <i>U</i>-factor in Table R408.31073(1).</p> <p><u>(4)</u> Air leakage.</p>

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			<p>(a) Building thermal envelope. The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material, suitable film or solid material.</p> <ol style="list-style-type: none"> <li>1. All joints, seams and penetrations.</li> <li>2. Site-built windows, doors and skylights.</li> <li>3. Openings between window and door assemblies and their respective jambs and framing.</li> <li>4. Utility penetrations.</li> <li>5. Dropped ceilings or chases adjacent to the thermal envelope.</li> <li>6. Knee walls.</li> <li>7. Walls and ceilings separating the garage from conditioned spaces.</li> <li>8. Behind tubs and showers on exterior walls.</li> <li>9. Common walls between dwelling units.</li> <li>10. Other sources of infiltration.</li> </ol> <p>(b) Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cubic foot per minute per square foot [1.5(L/s)/m<sup>2</sup>], and swinging doors no more than 0.5 cubic foot per minute per square foot [2.5(L/s)/m<sup>2</sup>], when tested according to NFRC400 or AAMA/WDMA/CSA101/I.S.2/ A440 by an accredited, independent laboratory, and listed and labeled by the manufacturer.  Exception: Site-built windows, skylights and doors.</p> <p>(c) Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces by being:</p> <ol style="list-style-type: none"> <li>1. IC-rated and labeled with enclosures that are sealed or gasketed to prevent air leakage to the ceiling cavity or unconditioned space; or</li> <li>2. IC-rated and labeled <u>in accordance with</u> ASTM E 283 when tested at 1.57 pounds per square foot (75 Pa) pressure differential with no more than 2.0 cubic feet per minute (0.944 L/s) of air movement from the conditioned space to the ceiling cavity; or</li> <li>3. Located inside an airtight sealed box with clearances of at least 0.5 inch (13 mm) from combustible material and 3 inches (76 mm) from insulation.</li> </ol> <p>(d) <u>Moisture control</u>. The building design shall not create conditions of accelerated deterioration from moisture condensation.  <u>Exceptions:</u></p> <ol style="list-style-type: none"> <li>1. <u>In construction where moisture or its freezing will not damage the materials.</u></li> <li>2. <u>Where other approved means to avoid condensation are provided.</u></li> </ol>

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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
			<div>1. Above-grade frame walls, floors and ceilings not ventilated to allow moisture to escape shall be provided with an approved vapor retarder. The vapor retarder shall be installed on the warm-in-winter side of the thermal insulation.</div> <div>2. Below grade moisture control. Framed walls on the interior side of exterior masonry or concrete foundation walls shall be constructed to avoid condensation within the framed wall space or the foundation wall.</div> <div>Exception:</div> <div>Where other approved means to avoid condensation are provided.</div>

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Deleted: (e) Maximum fenestration *U*-factor. The area weighted average maximum fenestration *U*-factor permitted using tradeoffs from the *U*-factor alternative provisions of this rule in Zones 1 to 3 shall be 0.55. To comply with this section, the maximum *U*-factor for skylights shall be 0.75 in zones 1 to 3.

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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
408.31071	Materials and equipment; identification; insulation installation, maintenance, and labeling; fenestration rating, certification, and labeling	Systems	<p><b>Amend R 408.31071 to read as follows:</b></p> <p>R 408.31071 Systems.</p> <p>Rule 1071. All of the following provisions apply to the building systems. (1) Systems.</p> <p>(a) Controls. At least one thermostat shall be installed for each separate heating and cooling system.</p> <p>(b) Heat pump supplementary heat. Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.</p> <p>(2). Ducts.</p> <p>(a) Insulation. Supply and return ducts shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.</p> <p>Exception: Ducts or portions thereof located completely inside the building thermal envelope.</p> <p>(b) Sealing. Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.3.1.</p> <p>(c) Building cavities. Building framing cavities shall not be used as supply ducts.</p> <p>(d) Mechanical system piping insulation. Mechanical system piping capable of carrying fluids above 105°F (40°C) or below 55°F (13°C) shall be insulated to a minimum of R-2.</p> <p>(e) Circulating hot water systems. All circulating service Hot water piping shall be insulated to at least R-2. Circulating hot water systems shall include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.</p> <p>(f) Mechanical ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.</p> <p>(g) Equipment sizing. Heating and cooling equipment shall be sized as specified in Section M1401.3.</p>

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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
408.31072	Alternate materials, method of construction, design, or insulating systems	Default factors	<b>Amend R 408.31072 to read as follows:</b> Rule 1072. Default <i>U</i> -factors. Tables R 408.31072(1), R408.31072(2) and R408.31072(3) are added to read as follows:  <p style="text-align: center;"><b>TABLE R408.31072(1)</b>  <b>DEFAULT GLAZED FENESTRATION <i>U</i>-FACTORS</b></p> <p style="text-align: center;"><b>TABLE R408.31072(2)</b>  <b>DEFAULT DOOR <i>U</i>-FACTORS</b></p> <p style="text-align: center;"><b>TABLE R408.31072(3)</b>  <b>DEFAULT GLAZED FENESTRATION SHGC</b></p>
408.31073	Residential building design by prescriptive approach; building envelope requirements	Insulation and fenestration requirements	<b>Amend R 408.31073 to read as follows:</b> Rule 1073. Insulation requirements. Tables R 408.31073(1), R 408.31073(2) and R 408.31073(3) are added to read as follows:  <p style="text-align: center;"><b>TABLE R408.31073(1)</b>  <b>INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT<sup>a</sup></b></p> <p style="text-align: center;"><b>TABLE R408.31073(2)</b>  <b>EQUIVALENT <i>U</i>-FACTORS</b></p> <p style="text-align: center;"><b>TABLE R408.31073(3)</b>  <b>STEEL-FRAME CEILING, WALL AND FLOOR INSULATION (<i>R</i>-VALUE)</b></p>
408.31074	Building component criteria; walls		<b>Delete language</b>
408.31075	Building component criteria; fenestration		<b>Delete language</b>
408.31076	Building component criteria; roof/ceiling		<b>Delete language</b>

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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
408.31077	Building component criteria; floors over unconditioned space		Delete language
408.31078	Building component criteria; slab-on-grade floors		Delete language
408.31079	Building component criteria; crawl space walls		Delete language
408.31080	Building component criteria; finished lower level walls		Delete language
408.31081	Building component criteria; exposed basement walls		Delete language
408.31082	Air leakage		Delete language
408.31083	Building envelope trade-off options		Delete language
408.31084	Residential building design by		Delete language

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RULE NUMBER	CURRENT MICHIGAN RULE TITLE	NEW MICHIGAN RULE TITLE	ACTION
	systems analysis and design of buildings utilizing renewable sources		
408.31085	Renewable energy source analysis		Delete language
408.31086	Heating energy analysis comparison report		<u>Retain language and Tables 1086.3 and 1086.4</u>

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